Notice of Allowability	Application No.	Applicant(s)	
	10/614,723	MATSUSHITA ET AL.	
	Examiner	Art Unit	
	Kara E. Geisel	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the application filed 07 July 2003*.

2. ☒ The allowed claim(s) is/are *1-10*.

3. ☒ The drawings filed on *07 July 2003* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *0805* .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Gregory J. Toatley, Jr.
Supervisory Patent Examiner
08/05/05

DETAILED ACTION

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Scherer on August 3rd, 2005.

The application has been amended as follows:

In regards to claim 2, line 2, the wording has been changed to put the claim in correct Markush group form.

Claims 11-12 have been cancelled, in order to overcome a prior art rejection.

The amended claim appears below:

2. A component according to claim 1, wherein said at least one target molecule comprises at least one biological material selected from the ~~following biological materials~~ group consisting of cells; proteins; genes; EST's, or other DNA sequences; ligand; receptor; peptide; and nucleic acid.

Examiner's Reasons for Allowance

Claims 1-10 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a component for analyzing molecules comprising a reflecting plate arranged to face an opposite side of a first surface of a substrate, and a micro lens array interposed between a substrate and a reflecting plate, which comprises a first lens array next to the substrate, a second lens array next to the reflecting plate, and a medium layer interposed between the first and second lens arrays, wherein each leans of the second lens array has its focus on each opposing lens of the first lens array, and the first lens array and the

second lens array focus into an image of each of the target molecules on the reflecting plate, in combination with the rest of the limitations of claim 1.

As to claim 8, the prior art of record, taken alone or in combination, fails to disclose or render obvious a component for analyzing molecules wherein each location on a first surface includes at least one target molecule, and comprising a corner cube array arranged to face an opposite side of a first surface of a substrate which is designed to reflect an incoming ray of light exactly in the same direction as which it enters the corner cube array, in combination with the rest of the limitations of claim 8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art made of record is Zarling et al. (USPN 5,736,410), Garini (USPN 6,552,794), Volcker et al (USPN 6,686,582), and Minoura et al. (US Pubs 2002/0154408).

Zarling discloses a method for analyzing molecules comprising the steps of applying an excitation beam generated by an excitation beam generator to at least one target molecule arranged on a transparent substrate, controlling optical paths of emission signals emitted from the excited at least one target molecule by a micro lens array, detecting the emission signals, and analyzing one or more values of detected emission signals.

Garini discloses a component for analyzing molecules comprising a substrate having a plurality of pixel locations on a first surface thereof, each location including at least one target molecule, a reflector, which can be a corner cube array, located on the first surface of the substrate, which is designed to reflect excited light back to the detector.

Volcker discloses a method for analyzing molecules comprising the steps of applying an excitation beam generated by an excitation beam generator to at least one target molecule arranged on a transparent substrate, controlling optical paths of emission signals emitted from the excited at least one target molecule by a micro lens array, detecting the emission signals, and analyzing one or more values of detected emission signals.

Minoura discloses a corner cube array arranged to face light source which is designed to reflect an incoming ray of light exactly in the same direction as which it enters the corner cube array

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kara E Geisel whose telephone number is **571 272 2416**. The examiner can normally be reached on Monday through Friday, 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on **571 272 2800 ext. 77**. The fax phone number for the organization where this application or proceeding is assigned is **571 273 8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory J. Toatley, Jr.
SPE
Art Unit 2877
05Aug05

K.G.

KEG
August 3, 2005